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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,288	09/19/2003	Otto Phanstiel	UCF-367	8624

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LAW OFFICES OF BRIAN S STEINBERGER
101 BREVARD AVENUE
COCOA, FL 32922

EXAMINER

O SULLIVAN, PETER G

ART UNIT PAPER NUMBER

1621

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/667,288

Applicant(s)

PHANSTIEL, OTTO

Examiner

Peter G. O'Sullivan

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) 14-19 and 22-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Claims 1-30 are pending in this application which should be reviewed for errors. In response to the restriction requirement, applicants elected the invention of group I, claims 1-25 with traverse. Upon the further requirement for the election of a single disclosed species, applicant elected with traverse the compound, N-4-aminobutyl-N-anthracene-9-ylmethylbutane-1,4-diamine, trihydrochloride. Applicant's compounds of formulae A and B which are not acyl, sulfonyl or carbamoyl substituted are examined therewith with all other compounds and claims 14-19 and 22-30 are held withdrawn.

Claim 8 is rejected under 35 U.S.C. 112, fourth paragraph, as failing to further limit the claim from which it depends. Claim 8 with a cycloalkyl moiety between nitrogen atoms is outside the scope of claim 1.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Bair et al., Chem. Abst. 113:114786. Bair discloses N-(3-aminopropyl)-N-methyl-N'-(1-pyrenylmethyl)-1,3-propandiamine and its trihydrochloride salt.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1—13, 20 and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teaching of Bergeron, Jr., US 6,235,794, Bergeron, Jr. US 6,342,534, Bowlin et al., US 5, 719,193 and Bair et al., Chem. Abst. 113:114786.


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Bergeron Jr. '794 disclose polyamines of formula I useful as anti-tumor agents which are triamines wherein the three nitrogens may be separated by alkyl or cycloalkyl moieties and wherein an end nitrogen may be substituted by arylalkyl (s. Col. 4, middle, and Col. 5, middle). Bergeron, Jr. et al. '534 adds to the above teaching by disclosing similar anti-cancer compounds having four or more nitrogens. Bowlin et al. adds to the above teaching by showing naphthyl alkyl may be an end substituent of similar anti-cancer agents. The instant invention differs from the teaching of the first three cited references in that anthracenylalkyl or pyrenylalkyl are not specifically mentioned as arylalkyl moieties to substitute end nitrogens. Bair et al. discloses N-(3-aminopropyl)-N-methyl-N'-(1-pyrenylmethyl)-1,3-propandiamine and its trihydrochloride salt as an anti-tumor agent. It would have been prima facie obvious at the time the invention was made to one of ordinary skill in the art to start with the teaching of the cited references, to make applicant's compounds and to expect them to be anti-tumor agents. Given the teaching of pyrenylmethyl as a suitable end group with which to substitute end nitrogen atoms, one of ordinary skill in the art would be led to use aryl moieties larger than that specifically mentioned in the first three references.

No claim is allowed.

Any inquiry concerning this communication should be directed to Peter G.

O'Sullivan at telephone number (571)272-0642.



PETER O'SULLIVAN
PRIMARY EXAMINER
GROUP 1200